IN THE SPECIFICATION:

Please amend paragraphs **[0021]**, **[0041]**, and **[0042]** as follows, and please delete paragraph **[0022]**.

[0021] Fig. ~~7a~~ 7 is a schematic diagram of an on-board circuit for measuring power of a circuit on a PCB and the thickness of a calibration strip embedded in the PCB according to a second embodiment of this invention;

~~**[0022]** Fig. 7b is an expanded view of the configuration strip of Fig. 7a;~~

[0041] Referring now to FIG. ~~7a~~ 7, shown is a schematic diagram of an exemplary configuration of a differencing circuit 214 and A/D converter 218 used to deliver digital signals to CPU 220 or other processing means. In particular, an operational amplifier 302, similarly configured to the operational amplifier circuit 300 shown in FIG. 6, receives the voltages from vias c and d, or a and b, of the calibration strip 212.

[0042] The calibration strip 212 is placed in series with an input voltage source 210 and a precision resistor Rp, which is also shown in the expanded view of FIG. ~~b)~~ 7 The amplified output 47 (304) of the operational amplifier 310, which is the amplified potential V2 (or V1) across the vias of the calibration strip 212 (or power strip 206), is input into a channel of A/D converter 218. A/D converter 218 may be a 12 bit A/D converter with a scale of 0 - 5V DC, for example, but is not limited as such. The input voltage from voltage source 210 is also input into a channel of the A/D converter 218 as a reference voltage. The A/D converter 218 is powered and biased by circuit 218a. The A/D converter outputs corresponding digital signals (V2' and V reference) which may be input into CPU 220 or other calculation means in order to perform the power

calculations. One having ordinary skill in the art will readily understand that the described configuration may be modified to include any number of amplifiers and A/D converters in order to accommodate circuits having more power strips and/or calibration strips.